

ESMRMB Alert on Contrast Agents

The following information is provided by the European Society for Magnetic Resonance in Medicine and Biology (ESMRMB). The content is based on recent FDA Public Health Advisories and on several upcoming scientific publications.

Increasing Evidence for a Possible Link between Gadolinium-based Contrast Agents and Nephrogenic Systemic Fibrosis/Nephrogenic Fibrosing Dermopathy (NSF/NSD)
Nephrogenic Systemic Fibrosis or Nephrogenic Fibrosing Dermopathy (NSF/NFD) is a new and rare disease which is known for less than 10 years. NSF/NFD may occur in patients with moderate to end-stage kidney disease after they have had a magnetic resonance examination with a gadolinium-based contrast agent.

The knowledge about the new disease and its possible link to gadolinium-based contrast agents is currently increasing. Retrospective analysis is being performed in order to elucidate possible influencing factors on the disease. Approximately one hundred of patients have been identified yet.

ESMRMB kindly advises all members of the MR community to carefully consider the new knowledge about potential side effects of MR contrast agents in specific patient groups. For radiologists working with contrast media it seems necessary to keep up with current studies and publications in this field.

New information has been provided in scientific contributions:

1) "Nephrogenic Systemic Fibrosis: Risk Factors and Incidence Estimation," by Elizabeth A. Sadowski, M.D., and colleagues <http://radiology.rsna.org/cgi/content/full/2431062144v1> .

2) "Gadolinium-based MR Contrast Agents and Nephrogenic Systemic Fibrosis," by Phillip H. Kuo, M.D., Ph.D., and colleagues <http://radiology.rsna.org/cgi/content/full/2423061640v1> .

3) "Nephrogenic systemic fibrosis: a serious late adverse reaction to gadodiamide," by Henrik S. Thomsen.
Eur. Radiol. (2006) 16: 2619–2621

The European decision: The European Medicines Agency (EMA) has decided that it is contraindicated to use gadodiamide (Omniscan®) in patients with a GFR below 30 ml/min, on dialyses and patients who have undergone liver transplantation. Due to immature kidney function in neonates and infants up to 1 of age, gadodiamide should only be used in these patients after careful consideration.

Following web-pages contain further valuable information
FDA: www.fda.gov/cder/drug/advisory

www.mhra.gov.uk

RSNA: www.rsna.org/Publications/.../RSNANews_Feb07_Gadolinium.pdf

ISMRM: www.ismrm.org

NSF Registry: www.icnfd.org